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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  OCT 02   CA/CAplus enhanced with pre-1907 records from Chemisches
                   Zentralblatt
 NEWS  3  OCT 19   BEILSTEIN updated with new compounds
 NEWS  4  NOV 15   Derwent Indian patent publication number format enhanced
 NEWS  5  NOV 19   WPIX enhanced with XML display format
 NEWS  6  NOV 30   ICSD reloaded with enhancements
 NEWS  7  DEC 04   LINPADOCDB now available on STN
 NEWS  8  DEC 14   BEILSTEIN pricing structure to change
 NEWS  9  DEC 17   USPATOLD added to additional database clusters
 NEWS 10  DEC 17   IMSDRUGCONF removed from database clusters and STN
 NEWS 11  DEC 17   DGENE now includes more than 10 million sequences
 NEWS 12  DEC 17   TOXCENTER enhanced with 2008 MeSH vocabulary in
                   MEDLINE segment
 NEWS 13  DEC 17   MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
 NEWS 14  DEC 17   CA/CAplus enhanced with new custom IPC display formats
 NEWS 15  DEC 17   STN Viewer enhanced with full-text patent content
                   from USPATOLD
 NEWS 16  JAN 02   STN pricing information for 2008 now available
 NEWS 17  JAN 16   CAS patent coverage enhanced to include exemplified
                   prophetic substances
 NEWS 18  JAN 28   USPATFULL, USPAT2, and USPATOLD enhanced with new
                   custom IPC display formats
 NEWS 19  JAN 28   MARPAT searching enhanced
 NEWS 20  JAN 28   USGENE now provides USPTO sequence data within 3 days
                   of publication
 NEWS 21  JAN 28   TOXCENTER enhanced with reloaded MEDLINE segment
 NEWS 22  JAN 28   MEDLINE and LMEDLINE reloaded with enhancements
 NEWS 23  FEB 08   STN Express, Version 8.3, now available
 NEWS 24  FEB 20   PCI now available as a replacement to DPCI
 NEWS 25  FEB 25   IFIREF reloaded with enhancements
 NEWS 26  FEB 25   IMSPRODUCT reloaded with enhancements
 NEWS 27  FEB 29   WPINDEX/WPIDS/WPIX enhanced with ECLA and current
                   U.S. National Patent Classification


 NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

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* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 22:16:47 ON 26 MAR 2008

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

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STRUCTURE FILE UPDATES: 25 MAR 2008 HIGHEST RN 1010115-69-1
DICTIONARY FILE UPDATES: 25 MAR 2008 HIGHEST RN 1010115-69-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=> e rapamycin/cn
E1            1     RAPAMMUNE/CN
E2            1     RAPAMUNE/CN
E3            1 --> RAPAMYCIN/CN
E4            1     RAPAMYCIN 29-ENOL/CN
E5            1     RAPAMYCIN 31-O-METHYLTRANSFERASE/CN
E6            1     RAPAMYCIN 42-(BENZYL SUCCINATE)/CN
E7            1     RAPAMYCIN 42-(METHYL SUCCINATE)/CN
E8            1     RAPAMYCIN 42-HEMIADIPATE/CN
E9            1     RAPAMYCIN 42-HEMISUCCINATE/CN
E10           1     RAPAMYCIN ASSOCIATED PROTEIN (CARASSIUS AURATUS FRAGMENT)/CN
E11           1     RAPAMYCIN ASSOCIATED PROTEIN FRAP2 (HUMAN CLONE 99P18 GENE F
                    RAP2 C-TERMINAL FRAGMENT)/CN
E12           1     RAPAMYCIN DIACETATE/CN

=> s e3
L1            1 RAPAMYCIN/CN

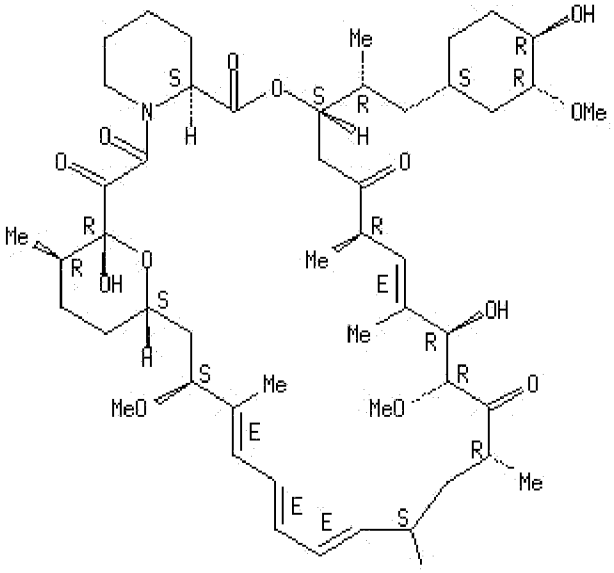
=> d

L1   ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   53123-88-9  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   Rapamycin  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   23,27-Epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclohentriacontine, rapamycin
     deriv.
OTHER NAMES:
CN   (-)-Rapamycin
CN   (3S,6R,7E,9R,10R,12R,14S,15E,17E,19E,21S,23S,26R,27R,34aS)-
     9,10,12,13,14,21,22,23,24,25,26,27,32,33,34,34a-Hexadecahydro-9,27-
     dihydroxy-3-[(1R)-2-[(1S,3R,4R)-4-hydroxy-3-methoxycyclohexyl]-1-
     methylethyl]-10,21-dimethoxy-6,8,12,14,20,26-hexamethyl-23,27-epoxy-3H-
     pyrido[2,1-c][1,4]oxaazacyclohentriacontine-1,5,11,28,29(4H,6H,31H)-
     pentone
CN   23,27-Epoxy-3H-pyrido[2,1-c][1,4]oxaazacyclohentriacontine-
     1,5,11,28,29(4H,6H,31H)-pentone, 9,10,12,13,14,21,22,23,24,25,26,27,32,33,
     34,34a-hexadecahydro-9,27-dihydroxy-3-[2-(4-hydroxy-3-methoxycyclohexyl)-1-
     methylethyl]-10,21-dimethoxy-6,8,12,14,20,26-hexamethyl-,
     [3S-[3R*[S*(1R*,3S*,4S*)],6S*,7E,9S*,10S*,12S*,14R*,15E,17E,19E,21R*,23R*,
     26S*,27S*,34aR*]]-
CN   Antibiotic AY 22989
CN   AY 22989
CN   NSC 226080
CN   RAPA
CN   Rapammune
CN   Rapamune
CN   RPM
CN   SIIA 9268A
CN   Sirolimus
```

CN Wy 090217
CN [3S-[3R*[S*(1R*,3S*,4S*)],6S*,7E,9S*,10S*,12S*,14R*,15E,17E,19E,21R*,23R*,
    26S*,27S*,34aR*]]-9,10,12,13,14,21,22,23,24,25,26,27,32,33,34,34a-
    Hexadecahydro-9,27-dihydroxy-3-[2-(4-hydroxy-3-methoxycyclohexyl)-1-
    methylethyl]-10,21-dimethoxy-6,8,12,14,20,26-hexamethyl-23,27-epoxy-3H-
    pyrido[2,1-c][1,4]oxaazacyclohentriacontine-1,5,11,28,29(4H,6H,31H)-
    pentone
FS STEREOSEARCH
MF C51 H79 N O13
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS,
      BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN,
      CSCHEM, DDFU, DRUGU, EMBASE, HSDB*, IFICDB, IFIPAT, IFIUDB, IMSDRUGNEWS,
      IMSPATENTS, IMSPRODUCT, IMSRESEARCH, IPA, MEDLINE, MRCK*, MSDS-OHS,
      NAPRALERT, PATDPASPC, PHAR, PROMT, PROUSDDR, PS, RTECS*, SYNTHLINE,
      TOXCENTER, USAN, USPAT2, USPATFULL, VETU
        (*File contains numerically searchable property data)
    Other Sources: WHO

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

            5162 REFERENCES IN FILE CA (1907 TO DATE)
             325 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            5194 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file merck
COST IN U.S. DOLLARS   SINCE FILE ENTRY   TOTAL SESSION
FULL ESTIMATED COST   7.61   7.82

FILE 'MRCK' ENTERED AT 22:17:20 ON 26 MAR 2008
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```
=> s l1
L2            1 L1

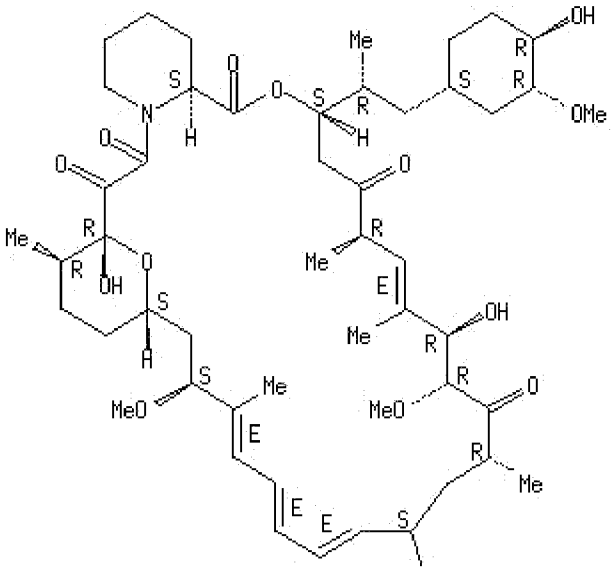
=> d all
```

L2 ANSWER 1 OF 1 MRCK COPYRIGHT (C) 2008 Merck and Co., Inc., Whitehouse Station, New Jersey, USA. All rights reserved. on STN

MERCK Number (MNO): 8202
CAS Registry No. (RN): **53123-88-9**
MERCK Index Name (MIN): Rapamycin
Synonym(s) (CN): Sirolimus; RAPA; RPM
Drug Code(s) (CN): AY-22989; NSC-226080
Trade Name(s) (CN): Rapamune (Wyeth)
Molecular Form. (MF): C51 H79 N O13
Wgt Composition (COMP): C 67.01%, H 8.71%, N 1.53%, O 22.75%.
Molecular Weight (MW): 914.17
References (RE): Triene macrolide antibiotic isolated from Streptomyces hygroscopicus. Name derived from the native word for Easter Island, Rapa Nui. Isoln: S. N. Sehgal et al., DE 2347682; eidem, US 3929992 (1974, 1975 both to Ayerst McKenna Harrison); purification and characterization: C. Vezina et al., J. Antibiot. 28, 721 (1975); S. N. Sehgal et al., ibid. 727. Inhibition of immune response: R. R. Martel et al., Can. J. Physiol. Pharmacol. 55, 48 (1977); of graft rejection in mice: C. P. Eng et al., Transplant. Proc. 23, 868 (1991). Total synthesis: K. C. Nicolaou et al., J. Am. Chem. Soc. 115, 4419 (1993); D. Romo et al., ibid. 7906. Series of articles on therapeutic monitoring and pharmacokinetics: Clin. Ther. 22, Suppl. 2, B1-B132 (2000); on pharmacology and clinical experience in transplantation: Transplant. Proc. 35, Suppl. 1, S1-S233 (2003). Clinical trial in prevention of coronary restenosis: D. R. Holmes, Jr. et al., Circulation 109, 634 (2004).

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A

Melting Point (MP):

```
  Value
   MP
  deg C
=========
183 - 185
```

Optical Rotatory Power (ORP):

```
     |     |Spectral|
Value|Temp.|  Line  |
 ORP |ORP.T| ORP.SL |   Note
 deg |deg C|        |
=====+=====+========+==========
-58.2| 25  |   D    |(methanol)
```

Toxicity (TOX):
LD50 in mice (mg/kg): 600 i.p.; >2,500 orally (Vezina).

UV Spectrum (UVS):

```
 Maximum |
Peak Pos.|
 UVS.PP  |                Note
   nm    |
=========+====================================
267      |(95% ethanol) (E1%1cm 417, 541, 416)
277      |
288      |
```

Other Properties (OCPP):
Colorless crystalline solid from ether, mp 183-185° . uv max (95% ethanol): 267 , 277 , 288 nm (E1%1cm 417, 541, 416) . [α]D25 -58.2° (methanol) . Sol in ether, chloroform, acetone, methanol and DMF; very sparingly sol in hexane and petr ether. Substantially insol in water. LD50 in mice (mg/kg): 600 i.p. ; > 2,500 orally (Vezina) .

Application (APP):
Tool for immunochemistry.

Therapeutic Codes (THER):
Immunosuppressant; antirestenotic.

Referenced Patent (RPN):
DE2347682; US3929992

```
=> log y
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                               3.47      11.29

STN INTERNATIONAL LOGOFF AT 22:18:55 ON 26 MAR 2008
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